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25 June 2003

Marlene H. Dortch, Secretary Federal Communications Commission Office of the Secretary 445 12th Street, SW Washington, DC 20554

Dear Ms. Dortch

Please accept the accompanying ten volumes as my filing to the commission to establish the Homeland Public Press and Information Widecast Service.

Any of the volumes can be accepted as an original, as all are individually signed by myself on page 19 of the petition.

Accompanying this letter is a copy of the title page of the presentation, so that it may be stamped and returned as a receipt for the submission.

A self-addressed postage-paid envelope is enclosed for your convenience.

Sincerely, Deorge B. Hutchison

George B. Hutchison

JUN 3 0 2003
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# Before the Federal Communications Commission Washington, D.C

**A Petition For Rulemaking** 

To Establish, Administer, and Regulate

# The Homeland Public Press And Information Widecast Service

By

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23 June, 2003

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3	Before the		
4	FEDERAL COMMUNICATIONS COMMISSION	ON	
5	Washington, DC 20554		
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8	In the Matter of	)	
9		)	
10	Petition for Rulemaking to	)	
11	Amend the rules of the Commission to	)	
12	Establish, Administer, and Regulate the	)	
13	Homeland Public Press and Information Widecast Service	)	
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15	To: The Commission		
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17	PETITION FOR RULEMAKING		
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19	The petitioner, George B. Hutchison, respectfully submits the	nis Petition for	
20	Rulemaking to amend the Rules of the Commission to Estal	olish,	
21	Administer, and Regulate the Homeland Public Press and Information Widecast		
22	Service.		
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#### DISCUSSION

**DESCRIPTION** 

The Homeland Public Press and Information Widecast Service (the service)
would be a means whereby text items containing news and information would
be disseminated via high-frequency (3 to 30 Mhz) radio signals to the general
public of the United States of America. The transmissions would employ
digital signaling methods including Radio-Teletypewriter, AMTOR/SITOR (FEC),
and PSK-31.

#### **PURPOSE**

The service would be an alternate to conventional AM/FM/TV news and information broadcast services, and be a method whereby those in remote locations could be kept up to date with regard to news, information, weather, and other items of interest in a printed format. The service would also transmit daily bulletins and advisories of the Department of Homeland Security as to alert status and other anti-terrorism advisories related to the mission of the Department of Homeland Security. In times of national emergency, the service would be available as a full time, dedicated communications channel for the Department of Homeland Security and able to reach listeners at locations where

conventional communications services may be unavailable (coastal cruising 46 and fishing vessels, remote locations, etc.) 47 48 WHY AN ALTERNATIVE SERVICE? 49 50 The petitioner recently completed an extended period of experimentation 51 wherein regularly scheduled transmissions of news and information utilizing 52 traditional radio teleprinter transmission technology were done on a daily basis. 53 The results of the experimentation determined that however well-served 54 America is by its traditional broadcast news services, there is a desire on the 55 part of some segments of the general public for other means of news and 56 information dissemination in a printed format that can be received and then read 57 at a later time, or preserved for future reference. 58 59 THE EXPERIMENT 60 61 The petitioner applied to the FCC's Office of Engineering and Technology for an 62 experimental license, the purpose of which was to determine the public interest 63 in receiving radio-teleprinter transmissions, commonly known as RTTY 64 65 (RadioTeletype). 66 The OET granted a Special Temporary Authority, assigning station callsign 67 WA9XHN, and assigned two frequencies in the High-Frequency bands, 6994 KHz 68

and 13972 KHz, and authorized radioteletype transmissions of news and other information. Other technical requisites included frequency tolerances of .005 percent, and a power level of 1000 watts. The first STA period was six months. A second STA extended operations for approximately nine additional months, after which time the license application was approved allowing transmissions to continue for a period of one year. The assigned callsign for the period of the license was WC2XPF.

The authorizations and license resulted in a rigorous transmission schedule which developed into an average on-air time of approximately 32 hours per week. Frequency utilization was approximately 50 percent on 6994 KHz and 50 percent on 13972 KHz. Time of day and seasonal propagation changes were determining factors.

The steady schedule was maintained so that those interested in receiving the transmissions would become confident that they could rely on the presence of the transmissions at the specified times. They might not listen/copy every day, but as in the AM/FM/TV broadcast industry, not everyone listens/watches every day, but they know that the services are there in the event they desire to tune in to the transmissions.

Transmission speed was sixty words per minute with the exception of Fridays,
when the speed was increased to 100 words per minute. The duration of the
experimental period of the transmissions was approximately 21 months.

were given at the end of all items.

The material transmitted was gleaned from the internet, consisting of a variety of sources and types of content, including White House Press Releases, press releases from all military services and the Coast Guard, and sources such as <a href="https://www.newsMax.com">www.newsMax.com</a>, <a href="https://www.newsmax.com">www.newsmax.com</a

The material was formatted and transmitted in a manner so as to resemble the formats of the era when UPI, AP, etc. were using the high-frequency bands to move news all over the globe, in the era before satellites, internet, and fiber-optic cable.

Utilization of some clever software even allowed such activities as RTTY "Talk-Shows", wherein an individual sitting in his location wherever, could type on his computer keyboard, and it would be transmitted over the air. It seemed fair that if radio talk shows could do it, so could this station.

Quality and "good taste" were paramount issues. No expletives were ever transmitted, and though the station periodically transmitted jokes of various types, the reader's mind was used as a canvas, with acceptable wording used as the paint. Last but not least, an old broadcast industry tradition was maintained wherein when signing off, the lyrics of The National Anthem closed each transmission. It is impossible to play music on a teletype machine, but many good comments were received regarding this practice. WHO COULD and WHO WAS LISTENING TO/COPYING THE TRANSMISSIONS? Recreational Vehicle owners, pleasure boating enthusiasts, commercial fishing and other marine endeavors, and people living in remote locations are typical of those who could be served by the proposed service. Electronic and radio hobbyists and short-wave listeners (SWLs) definitely took interest in the experimental transmissions. The radio periodical "Monitoring Times" regularly printed short items about RTTY transmissions from WC2XPF. Throughout the period of the experiment the station received e-mail and telephone calls from persons all over the contiguous United States, Alaska, Hawaii and Puerto Rico, and neighboring countries such as Canada and Mexico.

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Some of the more distant points of reception included Northern New Zealand 135 and Kwajalein Island. 136 137 One very interesting communication was from a truck driver who was copying 138 the transmission on a laptop computer in the cab of his truck as he traveled 139 from Eau Claire, Wisconsin en route to Chicago. Another was a photo sent in by 140 a fellow from Norman, Oklahoma, who was using a Teletypewriter Device for the 141 Deaf (TDD) to copy the broadcast. Please view the photo in EXHIBIT ONE of the 142 exhibits. 143 144 Boats and other marine installations usually have the capability of High-145 Frequency radio communications. This is a Coast Guard requirement if the 146 vessel is to be traveling offshore. The on-board communications equipment, in 147 concert with a laptop or PC computer, can be used to receive all proposed 148 modes of transmission. 149 150 WHAT METHODS CAN BE EMPLOYED TO RECEIVE THE TRANSMISSIONS? 151 152

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Traditionally, news information via radio was received by using short-wave

receivers, specialized demodulation equipment, and printed by mechanical

means known teletypewriters. Many such arrangements still exist.

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The advent of the home-based computer has made reception of such signals far easier, more accurate, and considerably quieter. Today, a simple short-wave receiver, and a computer with a sound card can be used to print or view information transmitted by all of the proposed modulation methods. The software to do so is available without charge from many sources, and installations can be as compact as a small radio and a laptop computer. Several reception reports were received by e-mail, with the e-mail often being generated and transmitted while the computer on which it was written was still copying the incoming transmission.

#### THE SURVEY

The last month and a half before the WC2XPF license was to expire, solicitations were made both over the air and on the internet website, <a href="https://www.RTTY.COM">www.RTTY.COM</a>, for input from interested parties as to their interest and response to our transmissions. Demographic information such as name, location, and other generic data was requested.

Additionally and most importantly, a comment area was provided so as to allow space for those who wished to do so, to express their thoughts on the transmissions. It was felt to be imperative that the comments be the respondents own thoughts, and not a "rubber stamp" approval of supplied

wording. The format and wording of the survey is presented as a part of EXHIBIT TWO.

The results of the survey were gratifying and encouraging, and are the impetus for the submission of this petition. The petitioner believes the results of the survey, presented in EXHIBIT TWO clearly establish a desire and/or need on the part of the general public for continued transmissions of the nature the experimental service provided.

The members of the Commission are urged to examine the responses to the survey and arrive at their own conclusions as to whether or not the public interest would be served by the proposed service.

#### THE CONCLUSION OF THE EXPERIMENT

As the end of the WC2XPF license period approached, application for renewal of the Experimental License was made, so as to be able to continue the transmissions and therefore maintain the momentum which had been achieved by the end of the license period.

The OET response was in general agreement with the assessment that the experiment was successful in that it did prove an interest and need on the part of the general public for such a service.

It was felt, however, that further transmissions would be beyond of the spirit of the Experimental Radio Service. The time had come to pursue licensing specifically permitting the transmission to the general public text-based news and information employing standard data transmission formats and techniques, and on frequencies in the High-Frequency radio bands.

#### WHY CAN THERE BE NO TEXT DATA TRANSMISSIONS AT THIS TIME?

The Rules of the Commission permitting news and information transmission to the general public of the United States via High-Frequency radio utilizing <u>any</u> transmission mode do not exist!

Part 23 of the Commission's rules deals with domestic and international fixed point-to-point public correspondence and point-to-point public press issues, but does not allow for transmissions directed to non-subscribing receiving stations or to the public at large.

Regarding shortwave broadcasting. Part 73.701 of the Commission's rules which defines international broadcasting stations, specifically states that the transmissions from American shortwave broadcast stations are intended to be received directly by the general public in <u>foreign</u> countries. Additionally, the International Broadcast Rules require transmission facilities, power levels and

antenna systems such as to provide high signal strength levels in the distant "target" countries.

Facilities of this magnitude are unwarranted for digital mode transmission of press and information to the general public of the United States.

## THE HOMELAND PUBLIC PRESS and INFORMATION WIDECAST SERVICE -

#### WHAT IS ENVISIONED?

President Bush initiated the establishment of the Department of Homeland Security as a means of uniting America's people and resources into a cohesive system wherein the talents, expertise and the services of American citizens could be called upon to enhance and protect the security of The United States of America. The petitioner believes that the establishment of the Homeland Public Press and Information Widecast Service would fully embody the spirit of the Department of Homeland Security, and would result in a text-based data transmission network whose stations, licensees, and diverse locations would prove to be excellent adjuncts to national arrangements such as the SHARES communications system, and other similar systems already in place. The service also would provide for unattended monitoring of Department of Homeland Security alerts and bulletins by various state and local government agencies as well as the citizenry.

There are several aspects of the proposed service which decidedly differentiate 247 it from the Domestic and the International Broadcasting Services. 248 249 The first consideration is that the service should be a totally voluntary service, 250 one for which no revenues or financial considerations for pecuniary gain would 251 be permitted. The burden of the expense entailed in establishing the proposed 252 stations and network would be borne by those volunteering their time and 253 expertise to become licensed and then establish their transmitting facilities. 254 255 The nature of the proposed service would be to provide, as a public service and 256 on a regular basis, text-based radio transmissions utilizing digital transmission 257 modes including radioteletype, AMTOR/SITOR FEC (Forward Error-Correcting), 258 and Phase-Shift Keying (PSK-31). 259 260 A nation-wide network of volunteer stations is foreseen. 261 262 Each station would be an entity wholly separate from any other in ownership, 263 but operated as a part of a cooperative, coordinated effort directed towards the 264 purpose of news and information dissemination. 265 266 Licensees should be Citizens of the United States of America. Character checks 267 and background investigations so as to preclude individuals of questionable 268 nature from obtaining licensing should be considered. 269

Licensees should possess technical competence and expertise in RF Transmission practices. A General Radiotelephone License, or Advanced Class or above Amateur Radio License would be considered adequate documentation to this effect. Stations in the service should be required to have a capability of a minimum of 500 watts output, and a maximum of 2000 watts transmitter power output. Antenna systems should be non-directional/omni-directional, and employ good engineering practices in their design and construction. Station facilities should be of a quality so as to instill complete confidence by the Commission in meeting technical requirements for frequency stability, purity of emissions, and station reliability. Type-Accepted RF generation and transmission equipment should be mandatory. Stations should be required to be capable of operating on power sources completely independent of normal power sources, so as to be able to remain onthe-air in the event of conditions or events wherein the ability to maintain transmissions is vital to the public interest. Modulation monitoring, frequency monitoring, and output power instrumentation equipment should be in use whenever the station is active.

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Logging of activities should be automatic and incorporated within the widecast station's operational control system.

The frequencies utilized should be in the HF (3 to 30 MHz) Frequency bands, on frequencies specifically designated for this proposed class of service.

Frequency usage and transmission schedules should be coordinated by a central coordination entity in a manner so as to most efficiently use the allocated spectrum space, be consistent with propagation conditions, and to optimize coverage of all areas of the United States.

#### **A COOPERATIVE EFFORT**

The FCC has enjoyed phenomenal success with the cooperative efforts between the FCC and the American Radio Relay League as pertain to licensing, enforcement, and other administrative activities associated with the Amateur Radio Service.

The petitioner asserts that a similarly successful arrangement for the proposed service could be afforded by the establishment of an organization whose responsibilities would be to foster and promote the proposed service, assist the FCC with routine administrative activities, and offer licensees and interested

parties assistance with issues such as scheduling and frequency usage 315 316 coordination, technical issues and expertise, and public inquiry and response. 317 The petitioner has therefore undertaken the task of establishing and registering 318 a not-for-profit organization known as The National Association of Data 319 Widecasters (NASDAW). This is a Washington state based not-for-profit 320 corporation. EXHIBIT THREE is a copy of the Articles of Incorporation of 321 NASDAW, with a brief synopsis of the purpose and intent of NASDAW. 322 323 The petitioner submits that very positive cooperative efforts between the FCC, 324 NASDAW, and the station licensees of said service could be established in very 325 short order. 326 327 PROPOSED HOMELAND PUBLIC PRESS and INFORMATION WIDECAST 328 SERVICE RULES 329 330 The petitioner has included as EXHIBIT FOUR of this document a set of 331 proposed rules for the service. The proposed rules are patterned after those 332 found in various sections of parts 23, 73, 74, 97, and other parts of the 333 Commission's rules as found to be applicable. 334 335

The proposed rules are presented in general language as opposed to legalese. 336 The petitioner feels the rules should be understandable to all, and not need 337 interpretation. 338 339 Insofar as Part 96 of the Commission's Rules does not exist, the numbering of 340 the proposed rules shows them to be Part 96. This is done for convenience 341 purposes. 342 343 APPLICATION PROCESS 344 345 Applications for radio services under the cognizance of the Wireless 346 Telecommunications Bureau are made employing FCC Form 601 and 347 appropriate schedules. 348 349 EXHIBIT FIVE Part A and Part B are examples of Form 601 Main Form 350 Instruction Sheets and Schedule D Instruction Sheets which have been modified 351 to reflect the addition of the Homeland Public Press and Information Widecast 352 Service to the tables of services covered by Form 601 Main Form and Schedule 353 D. The Radio Service Code "HW" has been added to reflect the "Homeland 354 Public Press and Information Widecast" service. 355 356 EXHIBIT FIVE Part C is a prototype Schedule W Instruction Sheet, and EXHIBIT 357 FIVE Part D is a prototype Schedule W Form which would be specific to the 358

proposed Widecast service, and would detail the Widecast applicant's qualifications and details of his proposed facility. 

#### SUMMARY

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This Petition for Rulemaking has attempted to detail to the Commission the efforts of the petitioner to establish a case for positive consideration for the proposed Homeland Public Press and Information Widecast Service, a service which would employ tried and true technology to conduct its mission, yet

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include recent accomplishments in communications techniques.

The manner of presentation has been to provide a true and accurate description of the efforts expended, yet not go into reams of exacting detail and countless footnotes and references, which would detract from its intent of being a concise and interesting read.

The project has evolved from the perspective of curiosity and a fondness for a seemingly outdated technology, into the realization that the proposed service would benefit our country by enabling another means of information distribution. Those who would care to become involved would be in step with the President's request that we do what we can for America.

The licensee would bear the cost burden of establishing his facility. Contrasted with the pleas of state and local governments for Federal funding for Homeland Security measures, the proposed service is most certainly an exception.

47 CFR 1.1114 and 1.1162 of the FCC rules cite cases wherein exemptions from 405 charges and regulatory fees are proper. It is suggested that the proposed new 406 service would readily fall within the qualification quidelines of 1.1114 and 407 1.1162, and would therefore be fee exempt. 408 409 The petitioner has endeavored to establish The National Association of Data 410 Widecasters, (NASDAW) which is in principle similar to more prominent 411 organizations whose intents and purposes are supportive to the interests of 412 FCC licensees and services they represent, the FCC, and of the general public. 413 414 This petition concludes by presenting the Commission with a proposed set of 415 rules and forms fashioned after those applicable to other FCC licensed services, 416 but with considerations specific to text data transmission and its unique 417 requirements. The proposed rules and forms endeavor to evidence a sincere 418 desire to demonstrate responsibility, prescribe good technical standards, and 419 establish the proposed service as a viable entity. 420 421 Thank you for your consideration. 422 George B. Hutchen 6-23-03 423 424

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# **EXHIBIT ONE**



WC2XPF Being Copied On Teletypewriter Device for the Deaf(TDD)

Photo sent in by J. Carter Thompson Oklahoma City, OK